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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,225	10/24/2003	Tong Shao	USP2287C-DRSH	2282
30265	7590	08/08/2007		
RAYMOND Y. CHAN			EXAMINER	
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			ART UNIT	PAPER NUMBER
			2136	
			MAIL DATE	DELIVERY MODE
			08/08/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/693,225	Applicant(s) SHAO, TONG	
	Examiner Shanto M Z Abedin	Art Unit 2136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 May 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 8-18 is/are rejected.
- 7) ☒ Claim(s) 6, 7 and 19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                            |                                                                                         |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

***DETAILED ACTION***

1. This is in response to the communication filed on 05/30/2007.
2. Claims 1-19 are pending in the application.
3. Claims 1-5 and 8-18 are rejected.

***Election/Restrictions requirement***

4. The applicant's arguments regarding the previous Election/Restrictions requirement are fully considered, and found persuasive. Therefore, previous Election/Restrictions requirement is withdrawn, and claims 1-19 are examined in this office action.

***Drawings***

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the features set forth by claims 5-7, 17 and 19 (such as backing up current status, supervising unit for allowing or prohibiting switch control unit, ID verification unit validating users etc.) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary,

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the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Claim Objections*

6. Claims 6-7 and 19 are objected to because of the following informalities:

Claims 6-7 and 19 contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In particular, a supervising unit for controlling the switching, or ID verification unit for verifying users was not shown in drawings, or in specification in such way that one skilled in the art would be automatically be able to clearly and concisely figure out the inter- relationship of such supervising unit, or ID verification unit with the other parts of the system. Therefore, claim limitations raises a question whether they comply with written description, or enablement requirement. The applicant is suggested to provide description of supervising unit ,and ID verification unit as a part of drawings or specification.

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-5, 8-16 and 18 are rejected under 35 USC 103 (a) as being unpatentable over Kurakazu (US 5493659) in view of Chiu et al (US 6401154 B1) further in view of Tomiyasu (US 5138305).

***Regarding claim 1, Kurakazu*** discloses a computing system comprising: a CPU communicatively connected to a memory controller being communicatively connected to a memory connected either to an external operating system or to an internal operating system, through a switching unit (Col 9, starts at line 27; Col 13, starts at line 8; ROM; MPU; switching means); an input unit that is able to input a request of switching (Col 8, starts at line 5; trigger signal input; Col 13, starts at line 8; MPU; switching means); a first status thereof defined by states of all variable registers (Col 9, starts at line 27; Col 13, starts at line 8; first operating mode); a second status thereof defined by states of said all variable registers (Col 13, starts at line 8; second operating mode); a switching unit being communicatively connected to said CPU (Col 8, starts at line 5; Col 13, starts at line 13; switching means) and

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all said switches, respectively, has backups of both said statuses, and control said general switch to control all said switches to interrupt all serving programs, then load the other status other than said current status to the computing system (Col 10, line 34 to Col 14, line 65; changing statuses).

Kurakazu fails to disclose a first status when connected to said internal operating system; and a second status when external operating system; and backing up current status before loading other statuses.

However, Chiu et al discloses a first status when connected to said internal operating system; and a second status when external operating system (Col 15, line 52 to Col 16, line 56; selectively enabling internally and externally generated interrupts); and

Tomiyasu discloses backing up current status before loading other statuses (Col 6, starts at line 65: backing up current display mode).

Tomiyasu, Chiu et al and Kurakazu are analogous art because they are from the same field of endeavor of interrupt controlling. At the time of invention, it will be obvious to a person of ordinary skill in the art to combine the teaching of Tomiyasu and Chiu et al with Massarani to design a system wherein a first status is defined when connected to said internal operating system, and a second status is defined when external operating system, and backing up current status before loading other statuses in order to control both internal and external interrupts while the current status is preserved.

*Regarding claim 15*, it is rejected applying as above rejecting claim 1, furthermore, Kurakazu discloses method for a computing system having a CPU, an input unit, a first status, a second status, a switching unit, and, a switch program, wherein said method comprises following steps: (1) input a request of switching via said input unit when said computing system is in one of said two statuses (Col 13, starts at line 8; second operating mode; first and second operating modes); (2) after receiving said request of switching, said CPU runs said switch program (Col 10, line 34 to Col 14, line 65; changing statuses; switching means); and (3) said switch program control said switching unit to interrupt all serving programs and loads the other status other than said current status to the computing system (Col 10, line 34 to Col 14, line 65).

Kurakazu fails to disclose a first status when connected to said internal operating system; and a second status when external operating system; and backing up current status before loading other statuses.

However, Chiu et al discloses a first status when connected to said internal operating system; and a second status when external operating system (Col 15, line 52 to Col 16, line 56; selectively enabling internally and externally generated interrupts); and

Tomiyasu discloses backing up current status before loading other statuses (Col 6, starts at line 65: backing up current display mode).

*Regarding claim 2*, Kurakazu discloses computing system as claimed in claim 1 wherein said CPU also communicatively connected to a video memory controller, or a hard

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disk controller, or a network adapter controller, each of which being respectively and communicatively connected to a video memory, a hard disk, and a network unit connected either to an external network or to an internal network, respectively through a video memory switch, a hard drive switch, and a network switch (Col 9, starts at line 27; Col 13, starts at line 8; ROM; MPU; switching means).

*Regarding claim 3, Kurakazu discloses computing system as claimed in claim 2, wherein said input unit comprises a keyboard, or a mouse, or a touch screen, or E-mail, or other information receiver (Col 9, starts at line 27; Col 13, starts at line 8).*

*Regarding claim 4, Kurakazu discloses computing system as claimed in claim 1, wherein a switching unit having a trigger that is able to generate a non-maskable interrupt to said CPU after said switching unit receives a command of switching from said CPU responding to said request of switching (Col 9, starts at line 27; Col 13, starts at line 8; ROM; MPU; switching means).*

*Regarding claims 5, 8-14 and 18, they recite the limitations of claim 1-4 and 15, therefore, they are rejected applying as above rejecting claim 1-4 and 15.*



*Regarding claim 16*, it is rejected applying as above rejecting claim 1, furthermore, Kurakazu discloses The method as claimed in claim 15, said switching unit having a trigger, and, a switch program kept in said switching unit, wherein step (2) may be

(2.1) after receiving said request of switching, said CPU sends a command of switching to said switching unit (Col 9, starts at line 27; Col 13, starts at line 8; ROM; MPU; switching means); (2.2) said switching unit sets said trigger which generates a consequent non-maskable interrupt back to said CPU (Col 8, starts at line 5; Col 13, starts at line 13; NMU); and (2.3) after and only after said receives said non-maskable interrupt, said CPU runs said switch program (Col 8, starts at line 5; Col 13, starts at line 13; NMU; switch means).

8. Claim 17 is rejected under 35 USC 103 (a) as being unpatentable over Kurakazu (US 5493659) in view of Chiu et al (US 6401154 B1) further in view of Tomiyasu (US 5138305) further in view of Heider et al (US 5276863).

*Regarding claim 17*, Tomiyasu discloses method as claimed in claim 15, wherein a further sub-step (3.1) may be added into step (3) wherein before said switch program starts backing up said current status ((Col 6, starts at line 65: backing up current display mode),

Tomiyasu fails to disclose a further confirmation of a judging unit kept in said switching unit is required.

However, Heider et al discloses a further confirmation of a judging unit kept in said switching unit is required (Col 14, starts at line 25).

Heider et al and Kurakazu are analogous art because they are from the same field of endeavor of interrupt controlling. At the time of invention, it will be obvious to a person of ordinary skill in the art to combine the teaching of Heider et al with modified Tomiyasu-Chiu et al- Massarani system to design a system wherein a judging unit kept in said switching unit in order to provide user based authentication.

#### ***Allowable Subject Matter***

9. ***Regarding claims 6-7 and 19***, they are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

10. A shortened statutory period for response to this action is set to expire in 3 (Three) months and 0 (Zero) days from the mailing date of this letter. Failure to respond within the period for response will result in ABANDONMENT of the application (see 35 U.S.C 133, M.P.E.P 710.02(b)).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shanto M Z Abedin whose telephone number is 571-272-3551. The examiner can normally be reached on M-F from 9:00 AM to 5:30 PM. If attempts

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to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Moazzami Nasser, can be reached on 571-272-4195. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Shanto M Z Abedin

Examiner, AU 2136

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